

## Remarks

### I. Status of the Application and Claims

At the time that the present Office Action was mailed, the claims pending in the application were claims 28-47. No claims have been added or cancelled herein.

### II. The Amendments

No amendments have been made herein.

## The Rejections

On pages 2-6 of the Office Action, the Examiner rejects claims under 35 USC § 103 as being unpatentable over Minnaard, *et al.* (*Synthetic Communications* 29:4327-4332 (1999)) in view of Schuda, *et al.* (*J. Org. Chem.* 53:873-875 (1988)). This rejection is almost identical to a rejection of claims under 35 USC §103 made by the Examiner in an Office Action mailed March 18, 2009 (see pages 2-5 of the March 18 Office Action). Applicants responded to the Office Action on August 14, 2009 and the Examiner expressly withdrew the obviousness rejection in an Office Action sent December 8, 2009. Specifically the Office Action states:

Applicants' amendment, filed August 14, 2009, has overcome the rejection of claims 28-47 under 35 USC 103 as being unpatentable over Minnaard, *et al.* in view of Schuda, *et al.* and the rejection of claims 28-40 under 35 USC 112, second paragraph as being indefinite for the phrase "has the general formula." The above rejections have been withdrawn.

The present Office Action does not mention the previous rejection and it is not clear why the obviousness rejection has been reintroduced or if, in fact, the previous rejection was simply accidentally overlooked. The most relevant portion of Applicants' previous response with respect to the 103 rejection based on Minnaard and Schuda is as follows:

On pages 2-5 of the Office Action, all pending claims are rejected under 35 USC §103 as being obvious over Minnaard, *et al.* (*Synth. Commun.* 29:4327-4332 (1999)) in combination with Schuda, *et al.* (*J. Org. Chem.* 53:873-875 (1988)). The Examiner alleges that Minnaard teaches the hydrogenation of phenylglycine using a rhodium catalyst and that Schuda teaches the hydrogenation of phenylalanine using a platinum catalyst. The Examiner then argues that it would have been obvious to combine the teachings of these references to arrive at the combined platinum/rhodium catalyst used in Applicants' procedure.

Applicants respectfully traverse this rejection.

First, Applicants submit that claims 29-31 have been amended so that they are limited to a subset of the compounds of claim 28 that may alter the Examiner's conclusions concerning the obviousness of these claims.

With respect to all of the other claims, Applicants submit that, in determining whether a particular invention is obvious, all factors must be considered, including evidence of unexpected effects (see, *Richardson-Vicks v. Upjohn* 122 F.3d 1476 (Federal Circuit 1997)). As discussed in the Background section of the application, numerous processes have been described in the literature for the hydrogenation of aromatic compounds and the steps and reagents in these processes could have been combined in a great many different ways. In general, substituting one known step for another, or one reagent for another, would be considered to be obvious. However, an exception is made for "selection inventions." These may occur in situations where a particular combination produces an unexpected improvement of some type.

In the present case, the mixed platinum/rhodium catalyst is much more efficient, *i.e.*, reactions proceed to completion much more rapidly, than could be predicted based upon the results reported by either of the cited references. Using a rhodium catalyst, Minnaard reports a 92% yield after a reaction time of 40 hours (see page 4330). Using a platinum catalyst, Schuda reports a reaction that proceeds for 18 hours and that appears to produce a yield of 98% (see page 874, first paragraph). Making the same types of products under similar conditions, Applicants report yields of 94.2%-98.6% after reaction times that are less than half of those reported in the references (6-8 hours for Examples 1, 2 and 4 in the application and 4 hours for Example 3). This is clearly an improvement of great importance in an industrial process and goes beyond what could possibly be predicted from substituting one prior art component for another.

In accordance with the discussion above, Applicants have amended claims so that they all now require that processes produce a yield of greater than 94% after a reaction time of 8 hours or less. It is respectfully submitted that these claims are directed to a selection invention that meets the requirements of patentability.

Applicants respectfully request that the present rejection be reconsidered in light of the above comments. Since nearly the same rejection was previously made, withdrawn, and is now reintroduced, Applicants respectfully request that, if the Examiner chooses to maintain this rejection, the reason why the above argument is no longer considered persuasive be clarified. Also, since Applicants have not been given a chance to address whatever new considerations have been used in rejecting claims, it is requested that a further rejection not be made final.

### Conclusion

In light of the considerations above, Applicants respectfully submit that all of the present rejections of claims have been overcome. It is therefore respectfully requested that these rejections be withdrawn and that the claims be allowed.

If, in the opinion of the Examiner, a phone call may help to expedite the prosecution of this application, the Examiner is invited to call Applicants' undersigned attorney at (240)683-6165.

Respectfully submitted,  
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